

GP-302696

HYDRAULIC ENGINE VALVE ACTUATOR

ABSTRACT OF THE DISCLOSURE

An integrated hydraulic valve actuator for use in a camless internal combustion engine. The valve actuator includes a separate bolt-on housing defining a through opening receiving a cylindrical liner. The liner internally defines an internal cylinder providing a riding surface, which coaxially surrounds an outer surface of a tubular boost piston. The boost piston defines an inner cylinder, which provides a riding surface for a drive piston fitted within the inner cylinder of the boost piston. The pistons are axially reciprocable within the liner cylinder. A piston position sensor extends radially into the housing and engages a cam on the drive piston to relay the position of the drive piston to a controller. The actuator is preassembled and the housing is attached to an engine cylinder head or cylinder head supply manifold to operate an associated exhaust or intake valve.